CLAIMS

1. A disc substrate having an eccentricity measuring area in which a groove area formed with spiral grooves and a planer mirror area are spatially alternately arranged.

2. A disc substrate according to claim 1, wherein an interval between the grooves in said groove area is selected in accordance with an optical system of a mechanical characteristics measuring apparatus which is used to measure an eccentricity amount and a fluctuation of a push-pull signal at one end and the other end of said groove formed spirally in said groove area.

3. A disc substrate according to claim 2, wherein a width of said groove area and a width of said mirror area are selected in accordance with the optical system of said mechanical characteristics measuring apparatus which is used to measure the eccentricity amount.

4. A disc substrate according to claim 2, wherein an interval between said grooves is selected so as to have a value in a range from 0.01 time or more to 0.25 time or less of a repetition interval of said groove area or said mirror area.

5. A disc substrate according to claim 2, wherein an interval between said grooves is selected so as to have a value in a range from 0.01 time or more to 0.15 time or less of a repetition interval of said groove area or said mirror area.

6. A disc substrate according to claim 4, wherein the repetition interval of said groove area or said mirror area is set to a value in a range from 0.7 μm or more to 2.5 μm or less.

7. A disc substrate according to claim 4, wherein a width of said groove area is selected so as to have a value in a range from 0.2 time or more to 0.8 time or less of the repetition interval of said groove area or said mirror area.

8. A disc substrate according to claim 4, wherein a width of said groove area is equal to almost the half of the repetition interval of said groove area or said mirror area.

9. A disc substrate according to claim 4, wherein a width of said eccentricity measuring area is selected so as to have a value in a range from 30 μm or more to 3 mm or less.

10. A disc substrate according to claim 1, wherein a clamp area to attach an optical disc to a spindle motor is set near a center hole of said disc substrate, an inner rim diameter of said clamp area is selected from a range of 22 to 24 mm, and an outer rim diameter of said clamp area is selected from a range of 32 to 34 mm.

11. A disc substrate according to claim 1, wherein a non-data area to attach the disc substrate to a spindle motor, a data area to form an information signal portion, and a non-data area having the eccentricity measuring area to measure eccentricity of the disc substrate are

sequentially provided.

12. A disc substrate according to claim 1, wherein a thickness of said disc substrate is selected from a range of 0.6 to 1.2 mm, a diameter (outer diameter) of said disc substrate is equal to 80 to 120 mm, and an opening diameter (inner diameter) of a center hole is equal to about 15 mm.

13. A disc substrate according to claim 1, wherein in a system for recording onto the grooves, a distance (track pitch) between the grooves formed in a data area is equal to about 0.32 μm and a width of each groove formed in the data area is equal to about 0.22 μm (half value width).

14. An optical disc comprising:

a disc substrate having an eccentricity measuring area in which a groove area formed with spiral grooves and a planer mirror area are spatially alternately arranged;

an information signal portion formed on one principal plane of said disc substrate; and

a protective layer for protecting said information signal portion.

15. An optical disc according to claim 14, wherein said protective layer has light transmittance and recording and/or reproduction of an information signal are/is executed by irradiating a laser beam from the side where said protective layer is provided.

16. An optical disc according to claim 14, wherein an interval between the grooves in said groove area is selected in accordance with an optical system of a mechanical

characteristics measuring apparatus which is used to measure an eccentricity amount and a fluctuation of a push-pull signal at one end and the other end of said groove formed spirally in said groove area.

17. An optical disc according to claim 16, wherein a width of said groove area and a width of said mirror area are selected in accordance with the optical system of said mechanical characteristics measuring apparatus which is used to measure the eccentricity amount.

18. An optical disc according to claim 16, wherein an interval between said grooves is selected so as to have a value in a range from 0.01 time or more to 0.25 time or less of a repetition interval of said groove area or said mirror area.

19. An optical disc according to claim 16, wherein an interval between said grooves is selected so a to have a value in a range from 0.01 time or more to 0.15 time or less of a repetition interval of said groove area or said mirror area.

20. An optical disc according to claim 18, wherein the repetition interval of said groove area or said mirror area is set to a value in a range from 0.7 μm or more to 2.5 μm or less.

21. An optical disc according to claim 18, wherein a width of said groove area is selected so as to have a value in a range from 0.2 time or more to 0.8 time or less of the repetition interval of said groove area or said mirror area.

22. An optical disc according to claim 18, wherein a width of said groove area is equal to almost the half of the repetition interval of said groove area or said mirror area.

23. An optical disc according to claim 18, wherein a width of said eccentricity measuring area is set to a value in a range from 30 μm or more to 3 mm or less.

24. An optical disc according to claim 14, wherein said protective layer is made of a light transmitting layer and formed by adhering a sheet onto one principal plane of the substrate on the side where said information signal portion has been formed.

25. An optical disc according to claim 14, wherein a clamp area to attach an optical disc to a spindle motor is set near a center hole of said disc substrate, an inner rim diameter of said clamp area is selected from a range of 22 to 24 mm, and an outer rim diameter of said clamp area is selected from a range of 32 to 34 mm.

26. An optical disc according to claim 14, wherein a non-data area to attach the disc substrate to a spindle motor, a data area to form the information signal portion, and a non-data area having an eccentricity measuring area to measure eccentricity of the disc substrate are sequentially provided.

27. An optical disc according to claim 14, wherein a thickness of said disc substrate is selected from a range of 0.6 to 1.2 mm, a diameter (outer diameter) of said disc

substrate is equal to 80 to 120 mm, and an opening diameter (inner diameter) of a center hole is equal to about 15 mm.

28. An optical disc according to claim 14, wherein in a system for recording onto the grooves, a distance (track pitch) between the grooves formed in a data area is equal to about 0.32 μm and a width of each groove formed in the data area is equal to about 0.22 μm (half value width).

29. An optical disc according to claim 14, wherein the sheet which is used to form said light transmitting layer comprises a light transmitting sheet and a PSA (Pressure Sensitive Adhesion) adhered to one surface of said light transmitting sheet.